Exhibit F: Factor 4 – Leverage and Outcomes

State of Illinois

ILExhibitFLeverage.pdf

Outcomes

Each Detailed Resilience Plan (described in Factor 3b) will evaluate alternative methods – such as green infrastructure, grey infrastructure, or use of innovative technology and design – that address flood mitigation while achieving additional co-benefits. Each alternative will be evaluated against a set of performance measures. Specific performance measures will vary between pilot areas, but will fall within categories that are shared across applicants. These categories, and the specific measures that the State of Illinois in cooperation with our regional planning partners, the Partnership, and stakeholder advisory committee will use, include:

Leadership and Strategy

Resilient project leadership with local target area communities will be provided through the **State of Illinois Resiliency Team** led by the Department of Natural Resources, Office of Water Resources that will convene to discuss ways to incorporate/improve resilient measures in state implemented or funded projects and to promote resiliency education statewide. This multiple state agency collaboration provides a venue to discuss ways to achieve multi-purpose benefits and associated leveraged multi-agency funding across state agency programs in ongoing and future state funded community projects. This collaboration also provides for the exchange of lessons learned through sponsored continuing education opportunities, and the open sharing of successful and unsuccessful project measures in vulnerable communities statewide.

Increased resiliency will also occur through regionally led local stakeholder advisory committees in areas that have demonstrated a high degree of vulnerability. By utilizing the broad view points and expertise of a local stakeholder advisory committee, along with performance measures, disaster recovery alternatives can be crafted into resiliency projects that provide co-benefits, like recreational opportunities, stormwater management, summer cooling, or

habitat restoration and help economically revitalize distressed target areas. Success will be measured by the number of at-risk communities assisted each year with a goal to improve resiliency in at least 5 communities each year.

The State of Illinois as a partner intends to seek implementation of successful alternatives in the various regions, including the NE Illinois Partnership statewide. Success is not limited to only one region or one partnership with this approach and resiliency can grow statewide under the general guidance, education and support of the State Resiliency Team and Stakeholder Advisory Team (including partner non-government organization) members.

Infrastructure and Environmental

The use of green infrastructure measures reduce runoff and urban flooding in a community and can help replenish groundwater supplies to local shallow aquifers and reduce the impacts to urban heat islands. Floodplain structure buyouts eliminate flood damages to individual structures, reduce public safety threats to residents and emergency responders during disasters, add conveyance and storage to the waterways, and provide for restoration and environmental utilization of natural areas, parks, and community open space. The outcome measure for this category will include target areas incorporating green infrastructure measures and the number of flood-prone properties purchased as defined in Factor 5.

Economy and Society

Improving transportation capacity and resiliency will allow for reduction in economic impacts during a disaster. Co-benefits include reduced maintenance and repair costs to the supporting infrastructure, reduced stress and impacts to alternative transportation systems during disasters. Development of early warning system will increase public safety and reduce personal property damage. The co-benefits would include reduced crime, violence, accidents and panic

among a community that is not well informed. The outcome measure utilized for economy and society include the number of improvements to transportation systems and the number of early warning systems implemented within the project area.

Health and Wellbeing

Planned community engagement brings the community members together to openly discuss hazards and risks impacting their community and allows the participants to have a voice in determining possible multi-benefit solutions. Engaging stakeholders in the development of resiliency measures actions helps them better understand the risks they face and allows for ownership of improvements that could benefit neighbors and the community while reducing potential health risk and stresses that can occur following disasters. The outcome measure utilized for Health and Wellbeing include the number of community engagement meeting held.

For all categories co-benefits will include environmental and ecosystem benefits to the greatest extent possible, particularly when connected with broader networks of open space, and other possible community benefits such as creating jobs. Stakeholders, experts, and the existing partnerships will be used to review and improve the measures through intensive peer review. Success is measured by more resilient communities and infrastructure, and the ability of a previously vulnerable community to be better prepared to encounter an event without it becoming a disaster.

Leverage

Finance - Through the "Financing the Future" workgroup, the Partnership (State of Illinois, City of Chicago, Cook County, and DuPage County) is engaging a broad range of banks and insurance companies in the area to discuss how they may incentivize resilient practices from residences, business, and large landholders in the area and explore a range of options for new

revenues to fund resilience planning—with a particular focus on green infrastructure financing. They also explored ways to leverage existing housing and transportation resources for stormwater management by leveraging Low Income Housing Tax Credits for resilient design.

As part of the Partnership, the State of Illinois, in cooperation with the Association of State Floodplain Managers (ASFPM) Foundation held an Urban Flood Risk Symposium on February 10th to explore alternative means to identify, fix and fund urban flood risk reduction solutions with representatives from the insurance, finance, engineering and real estate fields.

Through both of these gatherings, potential new streams of revenue were identified that could be established for resiliency planning activities, including stormwater fees, social impact bonds, and expanding existing state revolving fund uses. These groups also identified opportunities to use transportation infrastructure investments for stormwater capture. Making these funding sources available would reduce FEMA and private insurance payouts on flood damages, while also improving property value and economic development in the community.

Through the collaboration in the State Resiliency Team, the Northeastern Illinois Partnership, statewide regional planning commissions, and the regionally led **local stakeholder advisory committees**, additional financing sources can potentially be identified in the target areas when co-benefits of a particular resiliency alternative accomplish particular goals of other programs (heath, environmental, community development, water quality, etc.) thereby justifying additional funding resources from those programs seeking such co-benefits of an alternative.

Insurance - The insurance industry has also been a key player in identifying long-term leverage for resilience. With the 2014 Urban Flooding Awareness Act, the State of Illinois through IDNR has been undergoing a study of the cost and prevalence of urban flooding problems across Illinois. The Urban Flooding Awareness Study investigates the impacts and

possible remedies related to "urban" non-riverine flood damages in Illinois. The State DNR, Office of Water Resources will produce a report for the Illinois General Assembly by June 30, 2015 that addresses: The prevalence and costs associated with urban flooding events across the state, and the trends in frequency and severity over the past two decades; The apparent **impact of global climate change** on urban flooding; the impacts of county stormwater programs on urban flooding over the past two decades; an evaluation of storm frequency design policies; review of technology including green infrastructure measures and development of new strategies to reduce losses; strategies to increase NFIP participation and flood insurance coverage.

For this study, the IDNR's Office of Water Resources and Illinois Department of Insurance collected data from the FEMA National Flood Insurance Program (NFIP), as well as all private insurers in the state requesting insurance claim data for flood damage claims in Illinois from 2007-2014. Together, these claims data provide the most comprehensive picture of all types of flooding across the state, including basement back-ups and floods that occur outside of a floodplain. The insurance data shows the severity of chronic urban flooding in Illinois: 89% of all Illinois NFIP and private insurance claims were located within urban areas.

The final study is expected to identify potential revisions to flood insurance programs and update regulations to support innovative and cost-effective stormwater management strategies. These recommendations will provide a roadmap for FEMA, private insurance companies, and state and local governments on long-term changes that will enable better community preparedness for flooding. The study is also a catalyst to potential additional state funded, urban flood risk reduction programs in various state agencies and/or local governments.

The Partnership has also identified renter's insurance as a major concern. Given the high proportion of renters in this region, many residents are under-insured. Most private insurance

policies only cover replacement of appliances in a range of $5,000-$10,000. Many families live in below-grade apartments, or have homes that include living space in the basement. Insurance coverage for below-grade living spaces is commonly cost-prohibitive. Innovative solutions that involve the insurance industry will be explored further in Phase 2.

Committed Leverage Resources

As described in Factor 5, the State of Illinois is committed to funding the completion ($350,000) of the Urban Flood Awareness Report in partnership with the Prairie Institutes' Illinois State Water Survey, including the development of an updated model stormwater ordinance to reflect urban flood resilience and climate change trends. The contract for the work is include on page A-50 of Attachment B – Leverage Documentation (attBLeverage.pdf)

Through the IDNR, Office of Water Resources Flood Hazard Mitigation Program, the State of Illinois is committed to completing the City of Rockford Structural Flood Risk Assessment pilot project to assess and prioritize flood risk mitigation measures for all flood-prone structures along all tributaries into and through the City. It is also **committed to providing at least $250,000 in direct financial assistance** for acquisition and demolition of repetitive loss flood prone properties in target areas based on a structural flood risk assessment and prioritization of these properties.

Additionally, the city of Washington is able to leverage $6.5 million dollars provided by the Illinois Department of Transportation for restoration of local roads impacted by the tornado including $294,000 for preliminary engineering and $353,000 for final design. This restoration effort holds the potential to incorporate multiple co-benefits and resilient measures. The supporting documentation begin on page A-62 of Attachment B – Leverage Documentation (attBLeverage.pdf).